Recognize the Inner Environment Organization within Buildings of Ancient Civilizations Using a Quantitative Approach

Abdelhalim, Assassi

PhD, University of Batna 1, Algeria

Abstract

The archaeological urban environment can be divided into an extern and an inner of buildings. The extern environment contains different infrastructures and superstructures which can be identified through its urban typo-morphological logic. The inner environment of buildings, which via this paper is of our concern, where we focus on spaces within buildings, means their organization, their order of functions, their spatial system, and their spaces genotype. We aim through this research to deduce the culture of ancient civilizations towards the way of organizing the inner functions and spaces within buildings. Our first hypothesis said that each society has its own point of view, its own logic of ordering functions and topological relations between them. Each society has its own way of thinking toward the spatial structure within each type of buildings. Our second hypothesis said that there are spatial organization similarities within the inner environment of buildings of ancient civilizations.

For affirming our hypotheses, we adopt space syntax as a quantitative approach developed by the Laboratory of Space Syntax, UCL (University College London), which focuses on relationships between different spatial layouts and cultural phenomena, environmental phenomena, and so on. Space syntax approach goes beyond the descriptive aspect by using developed softwares such as Agraph. In this research, we followed the comparative methodology between various types of buildings chosen from ancient civilizations, such as Greek, Roman, and Chinese.

Biography

Dr. Abdelhalim Assassi is currently a senior lecturer in Architecture at the Institute of Architecture and Urbanism, University of Batna 1, Algeria. In 2000, he obtained his Architect degree at the Department of Architecture, University of Biskra, Algeria, and in 2004, he obtained his Master degree of Architecture and urban planning from the Institute of the Regional Planning, University of Provence (France). In 2017, he obtained his Ph.D in Architecture from the Institute of Architecture and Earth Sciences, University of Setif 1, Algeria. He has over 20 years of teaching experience, and he supervised many Master's theses and Ph.D's theses. His main research interests are based on Architecture and Artificial intelligence using various computer programs. He is a reviewer and a member of scientific boards in several international journals and conferences. He published many articles in international journals and seminars, and he published four books in Architecture (Noor publishing, Germany).